

Serial No. 10/016777

- 3 -

Art Unit: 2145

In the claims:

1. (currently amended) A routing device for forwarding data packets in a communication system, the routing device comprising:

at least one interface for receiving and transmitting data packets;

a set of routing processors coupled to the at least one interface, including a first each routing processor exclusively associated with a first routing protocol for determining a set of routes, and a second routing processor exclusively associated with a second routing protocol for determining a set of routes; and

a routing table manager coupled to the set of routing processors, for maintaining a forwarding table of routes provided by the set of routing processors.

2. (original) A routing device according to claim 1, further including a set of fast forward engines coupled to the at least one interface and the routing table manager for forwarding a data packet based on the forwarding table.

3. (currently amended) A routing device according to claim 1, wherein the routing table manager is exclusively associated with a third implemented on a separate processor than each routing processor in the set of routing processors.

4. (original) A routing device according to claim 1, wherein each routing processor includes memory.

5. (original) A routing device according to claim 1, wherein the memory includes RAM, cache memory and queue memory.

6. (original) A routing device according to claim 3, wherein the routing table manager processor includes memory in which the forwarding table may be stored.

7. (original) A routing device according to claim 1, further including: a control data module coupled to the at least one interface for receiving and processing control data messages from a

Serial No. 10/016777

- 4 -

Art Unit: 2145

control data bus; and a routing data module coupled to the at least one interface and the set of routing processors for receiving and processing routing data messages from a routing data bus.

8. (original) A routing device according to claim 7, wherein the control data module and the routing data module are implemented on the same processor.

9. (currently amended) An apparatus for aggregating and maintaining routing information for a routing device that forwards data packets in a communication system, the apparatus comprising:
an input for receiving routing information associated with a set of routing protocols;
a set of routing protocol processors coupled to the input, including a first each routing protocol processor exclusively associated with a first routing protocol from the set of routing protocols and for determining a set of routes for the first a particular routing protocol, and a second routing protocol processor exclusively associated with a second routing protocol from the set of routing protocols for determining a set of routes for the second routing protocol; and
a forwarding table coupled to the set of routing protocol processors for maintaining a list of routes provided by the set of routing protocol processors.

10. (currently amended) An apparatus according to claim 9, further including a routing table manager coupled to the set ~~of~~ of routing protocol processors for updating the forwarding table.

11. (original) An apparatus according to claim 9, wherein each routing protocol processor includes memory.

12. (original) An apparatus according to claim 11, wherein the memory includes RAM, cache memory and queue memory.

13. (currently amended) An apparatus according to claim 10, wherein the routing table manager is exclusively associated with a third implemented on a separate processor than each routing protocol processor in the set of routing protocol processors.

Serial No. 10/016777

- 5 -

Art Unit: 2145

14. (currently amended) A communication system comprising at least one routing device, the routing device for forwarding data packets in a communication system, the routing device comprising:

- at least one interface for receiving and transmitting data packets;
- a set of routing processors coupled to the at least one interface, including a first each routing processor exclusively associated with a first routing protocol for determining a set of routes, and a second routing processor exclusively associated with a second routing protocol for determining a set of routes; and
- a routing table manager coupled to the set of routing processors, for maintaining a forwarding table of routes provided by the set of routing processors.

15. (original) A communication system according to claim 14, wherein the routing device further includes a set of fast forward engines coupled to the at least one interface and the routing table manager for forwarding a data packet based on the forwarding table.

16. (currently amended) A communication system according to claim 14, wherein the routing table manager is exclusively associated with a third implemented on a separate processor than each routing processor in the set of routing processors.

17. (original) A communication system according to claim 14, wherein the routing device further includes: a control data module coupled to the at least one interface for receiving and processing control data messages from a control data bus; and a routing data module coupled to the at least one interface and the set of routing processors for receiving and processing routing data messages from a routing data bus.

18. (original) A communication system according to claim 17, wherein the control data module and the routing data module are implemented on the same processor.

19. (original) A communication system according to claim 14, wherein each routing processor includes memory.